

SCIENCE & EDUCATION Impact

Benefits from USDA/Land-Grant Partnership

Our Big, Fat Health Problem

Obesity is on the rise, promoting disease and adding to health-care costs.

According to the U.S. Centers for Disease Control and Prevention, 65 percent of U.S. adults are overweight. One in three is considered obese. The 1999-2002 National Health and Nutrition Examination Survey indicates that 16 percent of youths ages 5 to 19 are overweight — a 4 percent increase from 1994. Overweight boosts risk of heart disease, high blood pressure, stroke, Type II diabetes, arthritis and certain kinds of cancer, which account for 300,000 premature deaths in the United States annually. The CDC estimates that obesity-related medical costs amounted to \$75 billion in 2003. Land-grant universities collaborate with USDA to provide research and education to enhance nutrition and encourage physical activity.

Payoff

- **Don't super-size me.** Children's environment influences personal choice. **Michigan State** Extension has developed a tool that schools can use to assess their environment, from vending machine food to rewards for students. Scientists found that pizza was often offered as a reward, but kids preferred more recess time. **Auburn** scientists found that in rural areas where 20 percent to 30 percent of Alabama children are overweight, children are far less likely to play outside because of safety concerns and other factors. In one school where **Minnesota** Extension promoted alternative food choices, 95 percent of kindergartners willingly sampled new fruits and vegetables offered as snacks. A **Kentucky State** study of sixth-graders revealed that students who bought other foods with lunch ate about 20 percent more calories, with more calories from fat and sugar. The researchers advise setting higher nutritional standards for foods offered by schools. **Purdue** Extension emphasized to Head Start staff the importance of physical activity for children ages 3 to 5. The staff also learned to measure portions to control the Indiana students' calories. Teachers report students are eating a greater variety of foods and smaller portions of the higher-caloric choices and have lost weight. Food costs for the program fell 10 percent. **California's** photos of 850 student lunches showed that children with access to school salad bars averaged 2.5 servings of fruits and vegetables. Children who ate the standard lunch at the same school averaged 1.5 servings.

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- **Dining with diabetes.** To help people with diabetes adjust their diets, **West Virginia** Extension developed Dining with Diabetes cooking schools. In 2004, more than 700 people attended. These courses promote behavior changes, encourage physical activity and demonstrate cooking using healthful ingredients. The program has been adopted by extension in other states, including **Arizona, Colorado, Delaware, Florida, Ohio State, Montana State** and **Louisiana State**, whose 70 participants all said it helped them manage their diabetes.
- **Move it to lose it.** To help a community slim down, **Mississippi** Extension offered information on exercise, portion control, healthy eating and reducing sweets and fats. More than 1,200 residents took the challenge and lost nearly 6,000 pounds over 12 weeks. In a similar program at **Louisiana State**, 103 residents lost 4 to 8 pounds each, and more than 90 percent improved their cholesterol, blood pressure or blood glucose levels. The 12,000 adults and youth who participated in **Iowa State's** Lighten Up Iowa and Go the Distance in 2004 logged 3 million miles and lost 20,000 pounds.
- **Step it up.** In **Wyoming's** Wellness in Steps program, 162 adults increased their steps by about one-half mile per day. In a similar program, kids increased their steps by about one-quarter mile per day. **Colorado State's** walking program led 47 percent to 82 percent of the participants to increase their steps, totaling 50,000 miles. By starting a summer flag football league, **South Carolina State** enticed more than 100 youths to work out for two hours five days a week. Following a **North Dakota** program, the percentage of kids who were physically active at least five days a week grew from 68 percent to 81 percent.
- **Eat your fruits & veggies.** Cooperative Extension conducts the Expanded Food and Nutrition Education Program for low-income people throughout the nation. A **Virginia Tech** study showed that for every \$1 invested in EFNEP, \$10.64 is saved in health-care costs. The **Connecticut** EFNEP staff reached 1,017 people in 2004. Those eating no vegetables dropped from 25 percent of the participants to 10 percent, and those eating the recommended three or more servings of vegetables rose from 43 percent to 60 percent.

Michigan State reports that more than 60 percent of its 9,000 EFNEP participants ate more fruits and vegetables after the training.

- **Sensible snacking.** After the Chefs for Kids class, 52 percent of the 2,000 **Nevada** students chose "more healthful" snacks, whereas only 11 percent had before the class. In **Washington**, 86 percent of 4,000 youths who took nutrition education said they now eat a greater variety of foods. **Rutgers** researchers found that after learning that fruit juice contains unnecessary sugary calories, New Jersey parents served their kids one glass of juice instead of three daily.
- **Early disease detection.** Following a **North Carolina A&T** course on nutrition-related diseases, 58 percent of the 602 participants could identify three risk factors or symptoms associated with hypertension, elevated cholesterol, diabetes and coronary heart diseases. **Penn State** Extension program Preventing Diabetes: You Have the Power, a 30-minute educational broadcast, aired 25 times. And 90 percent of viewers said they had at least one diabetes risk factor. After watching the program, 70 percent said they were more likely to have their glucose tested and to change eating and physical activity habits to reduce risk of diabetes.



**Cooperative State Research, Education,
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